### THE MINERAL INDUSTRY OF

# **KENYA**

### By David Izon<sup>1</sup>

Kenya's mineral resources were limited. Mineral production consisted mainly of cement, fluorspar, gemstones, salt, and soda ash. According to Government sources, the mineral industry accounted for about 1% of the country's estimated gross domestic product (GDP) of about \$33 billion<sup>2</sup> in 1994.

The Government of Kenya initiated programs that were aimed at encouraging investment in the newly discovered resources, such as gold. The new investment code permitted several European and Canadian mining groups to prospect for gold and other mineral resources. The outlook for prospects indicated that gold deposits could be commercially viable and could be mined by open pit methods.

The Government encouraged firms to invest in the mineral industry by instituting new regulations that have reinstated confidence in the business community. During the past 2 years, reform activities have triggered a wave of new investments in Kenya. The new regulations also have encouraged local manufacturers to take advantage of the devalued shilling to export to neighboring countries. The country's financial institutions were to be restructured to provide assistance in management and finance to small-scale businesses. Fiscal policies were geared toward relocation of industries and commercial activities from urban areas to smaller towns.

Several western donor countries provided financial assistance for the Government to restructure its parastatals (government-owned corporations). Under this program, the Government also phased out subsidies, removed political interference, and established a modern stock exchange. The Government continued with policies that allowed investors to deduct all foreign exchange losses on their investments. Investors in large cities were given an investment tax credit allowance of 35% on plants, machinery, and buildings. For rural investors and manufacturers, respectively, the investment allowance was 85% and 100%.

The Government of Kenya established some policies in coordinating and developing strategies for sound environmental management. Among such policies was the National Environmental Action Plan (NEAP), aimed at finding effective solutions to developmental problems and providing a framework for dealing with policy and institutional changes. NEAP also provided a database for use in identifying environmental danger signals, which may be immediately acted upon to prevent or correct eminent disaster.

Major minerals and mineral materials produced in 1994 were cement, fluorspar, gemstones, salt, and soda ash. Gold production was solely artisanal. Both fluorspar and soda ash production declined in 1993 owing to falling prices on international markets. Artisanal gold production increased significantly because sales to the purchasing company were remarkably up. (See table 1.)

The total export earnings for the country in 1994 were estimated at about \$5 billion, of which export earnings from nonfuel minerals was about \$330 million, about 1% of the country's GDP. Petroleum products were a source of major export earnings, most of which were, in turn, used to import oil from the Middle East for the country's refinery at Mombasa. Petroleum products were mainly exported to neighboring east and southern African countries, particularly Uganda and Zaire.

Kenya's trading partners were France, Germany, Italy, Japan, the United Kingdom, the United States, and neighboring African countries. Imports from the United States were mainly iron and steel, medicinal and pharmaceutical products, machinery and transport equipment, phosphate rock, and processed nonferrous minerals.

The Government owned at least 51% of all mining companies, including the cement plants and the oil refinery. Magadi Soda Co. Plc, which was acquired by Penrice Soda Products of Australia in June 1991, operated as Magadi Soda Ash in 1992. Under the new agreement, Magadi Soda Ash maintained its interest and the new parent company retained all employees.

Gold production was mainly artisanal from alluvial open pit mines. There is no commercial gold production in Kenya. The known registered gold trading company is Goldenberg Co., based in Nairobi, which purchased gold from artisanal miners. According to the Government, Goldenberg also bought gold from smuggled sources, particularly from neighboring countries. A joint-venture of Serengeti Diamonds of Vancouver Canada, and Jester Global Co. of South Africa, was expected to explore for gold in an area about 200 square kilometers. According to the Northern Miner of October 1994, the joint-venture partners have verified the presence of 20-kilometer (km) prospects on a 40-km-long strike. The first phase of the project would include geothermal sampling, structural evaluation, and mapping of the site at a cost of \$1 million.

Combined output from the country's two cement plants,

Bamburi Portland Cement Co. Ltd. and the East African Portland Cement Co., was about 1.52 million metric tons (Mmt) in 1994. The two plants also were responsible for production of all limestone. Gypsum was produced by Athi River Mining Ltd. High-quality gypsum was sometimes imported to supplement local production. Klinker and magnetite also were produced locally. The Government's policy of decontrolling cement prices was a significant factor in the improved profitability of the cement industry. Lonrho PLC started the construction of a third cement plant at Koru, about 30 km southeast of Kisumu in the Nyaza Province of western Kenya. About 20% of all cement produced was sold to neighboring countries.

Fluorspar is Kenya's second most important mineral after soda ash. It was produced from an open pit mine at Cheberen in the Kerio Valley, near Eldoret. Kenya Fluorspar Co. Ltd. operated the mine and produced an acid-grade fluorspar that contained only 10% moisture. Production of and export earnings from fluorspar increased, compared with the previous year.

Soda ash, the most important mineral commodity produced in Kenya, was a significant source of foreign exchange earnings. The soda ash industry experienced a decline owing to poor international prices and rising industry costs. Plans were underway to increase output to about 300,000 metric tons per year (mt/a) by 1995. The new owner of Magadi Soda Co. PLC, Penrice of Australia, embarked on a program to modernize its production process and reduce pollution. The latter involved fitting oil traps to drains at the power station to prevent oil spillage into the lake and fitting dust extractors and scrubbers at rail-loading points to remove dust during loading. The Magadi operation also was Kenya's largest source of crude salt.

Kenya has not produced crude petroleum, but has a petroleum refinery. Proceeds from petroleum products refined at the Mombasa refinery made up a sizable share of Government revenues. Plans to upgrade the existing refinery and build a second refinery at the port of Mombasa may be shelved owing to the unwillingness of international firms to provide necessary funding. Plans considered included increasing the refinery capacity and making improvements in the refining process, particularly in the cracking process, to increase the range of petroleum products produced.

The railroad enters the country from the west near Tororo, Uganda, passes through Nairobi, and terminates at the port city of Mombasa, connecting key mining cities and districts along the way. Transportation of petroleum products from Mombasa to Nairobi is primarily by pipeline. Extension of the pipeline to Kissumu and Eldoret is under construction.

Kenya's stable political climate should be a plus for investors who are considering development projects in the country. Long-term industrial energy conservation programs, coupled with the implementation of favorable investment codes, could prove beneficial to the country in the future. Development of the port in Mombasa to world-class status that could handle a large volume of cargo and freight should increase Kenya's revenue base. Government policies directed toward projects to improve mineral production, increase foreign earnings, and reduce the deficit also are expected to continue.

#### **Major Sources of Information**

Permanent Secretary
Ministry of Energy and Mines
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Nairobi, Kenya
Mines and Geological Department
Ministry of Environment and Natural Resources
Nairobi, Kenya

<sup>&</sup>lt;sup>1</sup>Text prepared Apr. 1995.

<sup>&</sup>lt;sup>2</sup>Where necessary, values have been converted from Kenyan shillings (KSh) to U.S. dollars at the average rate of KSh68.00=US\$1.00 for 1994.

## TABLE 1 KENYA: PRODUCTION OF MINERAL COMMODITIES 1/2/

(Metric tons unless otherwise specified)

Commodity 3/	1990	1991	1992	1993	1994
Barite	105	100	e/ 100	e/ 14	14
Carbon dioxide gas, natural tons	5,620	4,160	4,800	5,910	5,910
Cement, hydraulic thousand tons	1,510	1,420	1,510	1,420	1,420
Clays, kaolin do.			21	7	7
Diatomite do.	944	787	507	829	829
Feldspar e/ do.	1,290 4/	1,200	1,200	1,200	1,200
Fluorspar (acid grade) do.	112,000	77,400	80,600	78,700	64,000 4/
Gemstones, precious and semiprecious:					
Amethyst kilograms	(5/)	(5/)	(5/)	303	303
Aquamarine do.	(5/)	110	100	43	43
Cordierite (iolite) e/ do.	117	10	10	14	4/ 14 4/
Garnet do.	90	90	90	31	4/ 31 4/
Ruby do.	200	200	123	4/ 120	e/ 120 e/
Sapphire do.	20	20		2,310	, , , , , , , , , , , , , , , , , , , ,
Tourmaline do.	9	10	10	229	229
Gold, mine output, Au content do.	25	20	20	154	154
Gypsum and anhydrite e/	36,000	36,000	36,000	36,000	36,000
Lead ore				396	396
Iron and steel: e/ Steel, crude thousand tons	20	20	20	20	20
Lime	13,900	11,800	r/ 12,000	12,000	12,000
Petroleum refinery products:					
Liquefied petroleum gas, thousand 42-gallon barrels	330 4/	300	300	300	300
Gasoline do.	2,860 4/	2,850	2,800	2,800	2,800
Jet fuel and kerosene do.	3,390 4/	3,300	3,300	3,300	3,300
Distillate fuel oil do.	4,200 4/	4,200	4,200	4,200	4,200
Residual fuel oil do.	4,420 4/	4,400	4,400	4,400	4,400
Other 6/ do.	956 4/	950	950	950	950
Total, including refinery fuel and losses do.	16,200 4/	16,000	16,000	16,000	16,000
Salt crude, rock	102,000	102,000	e/ 102,000	e/ 74,700	74,700
Sodium compounds, n.e.s.:					
Soda ash	245,000	245,000	186,000	145,000	145,000
Stone, sand and gravel:					
Calcareous:					
Coral e/ thousand tons	1,650 4/	1,600	1,600	1,600	1,600
Limestone do.	18	20	12	13	13
Sand, industrial (glass) do.	12,300 4/	12,300	12,300	12,300	12,300
Shale e/ do.	115,000	115,000	115,000	115,000	115,000
Vermiculite do.	2,660	2,600	2,290	1,960	1,960
Wollastonite e/ do.	97	100	100	100	100
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e/ Estimated. r/ Revised.

<sup>1/</sup> Includes data available through Apr. 17, 1995.

<sup>2/</sup> Previously published and 1994 data are rounded by the U.S. Bureau of Mines to three significant digits; may not add to totals shown.

<sup>3/</sup> In addition to the commodities listed, various crude construction materials (other clays, sand and gavel, and stone) not presented in this table presumably are produced, but quantity is not reported, and available information is inadequate to make reliable estimates of output levels.

<sup>4/</sup>Reported figure.

<sup>5/</sup> Less than 1/2 unit.

 $<sup>6/\</sup> Refinery\ fuel\ losses\ were\ as\ follows,\ in\ thousand\ barrels:\ 1990--700;\ 1991--700;\ 1992--700;\ 1993--700\ ;\ and\ 1994--700.$